

WHAT IS CLAIMED IS:

1. A method of data communication between a base station and a mobile station over a wireless communication network, the method comprising the steps of:
 - transmitting a data signal between a mobile station and a base station;
 - monitoring the data signal received by the mobile station from the base station; and
 - disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station.
2. The method according to claim 1 wherein the step of monitoring the data signal received by the mobile station from the base station comprises monitoring the signal to noise ratio (SNR) of the data signal received by the mobile station from the base station to provide a determination whether the mobile station is in a shadow of the base station.
3. The method according to claim 1 wherein the step of monitoring the data signal received by the mobile station from the base station comprises receiving a signal from the base station that indicates a loss of primary base station rake fingers to provide a determination whether the mobile station is in a shadow of the base station.
4. The method according to claim 1 further comprises the steps of:
 - monitoring the delay of the data signal received by the mobile station from the base station; and
 - identifying an abrupt change in the delay received by the mobile station from the base station to provide an indication of whether the mobile station is in a shadow of the base station.

5. The method according to claim 1 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output until the mobile station transmitter enters an idle (off) state.

6. The method according to claim 1 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output to achieve a power condition associated with a previous period of time.

7. The method according to claim 1 further comprising the step of enabling transmission of the data signal by the mobile station when the mobile station is no longer in a shadow of the base station and subsequent to disabling transmission of the data signal at a previous power level by the mobile station.

8. The method according to claim 7 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a previous power level.

9. The method according to claim 7 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a maximum power level.

10. A method of data communication between a base station and a mobile station over a wireless communication network, the method comprising the steps of:

transmitting a data signal between a mobile station and a base station;

monitoring the signal to noise ratio (SNR) of the data signal received by the mobile station from the base station to provide a determination whether the mobile station is in a shadow of the base station; and

disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station.

11. The method according to claim 10 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output until the mobile station transmitter enters an idle (off) state.

12. The method according to claim 10 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output to achieve a power condition associated with a previous period of time.

13. The method according to claim 10 further comprising the step of enabling transmission of the data signal by the mobile station when the mobile station is no longer in a shadow of the base station and subsequent to disabling transmission of the data signal by the mobile station.

14. The method according to claim 13 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a previous power level.

15. The method according to claim 13 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a maximum power level.

16. A method of data communication between a base station and a mobile station over a wireless communication network, the method comprising the steps of:

transmitting a data signal between a mobile station and a base station;

transmitting a signal from the base station to the mobile station that indicates a loss of at least one primary base station rake finger to provide a determination whether the mobile station is in a shadow of the base station; and

disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station.

17. The method according to claim 16 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output until the mobile station transmitter enters an idle (off) state.

18. The method according to claim 16 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output to achieve a power condition associated with a previous period of time.

19. The method according to claim 16 further comprising the step of enabling transmission of the data signal by the mobile station when the mobile station is no longer in a shadow of the base station and subsequent to disabling transmission of the data signal by the mobile station.

20. The method according to claim 19 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a previous power level.

21. The method according to claim 19 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a maximum power level.

22. A method of data communication between a base station and a mobile station over a wireless communication network, the method comprising the steps of:

transmitting a data signal between a mobile station and a base station;

monitoring the data signal received by the mobile station from the base station;

detecting an abrupt change in signal delay received by the mobile station from the base station to provide an indication of whether the mobile station is in a shadow of the base station; and

disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station.

23. The method according to claim 22 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output until the mobile station transmitter enters an idle (off) state.

24. The method according to claim 22 wherein the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output to achieve a power condition associated with a previous period of time.

25. The method according to claim 22 further comprising the step of enabling transmission of the data signal by the mobile station when the mobile station is no longer in a shadow of the base station and subsequent to disabling transmission of the data signal by the mobile station.

26. The method according to claim 25 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a previous power level.

27. The method according to claim 25 wherein the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches a maximum power level.